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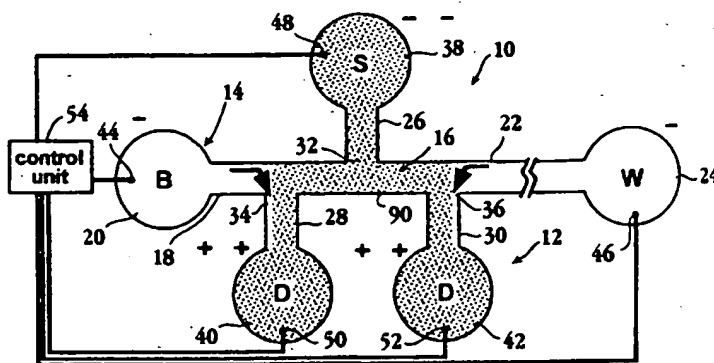
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(54) Title: MICROFLUIDIC DEVICE WITH SAMPLE INJECTOR AND METHOD OF USE



(57) Abstract: A method and device for injecting a liquid sample into an electrolyte channel in a microfluidics device is disclosed. The device has a channel network that includes an electrolyte channel having upstream and downstream channel portions and first, second, and third side channels that intersect the electrolyte channel between the two channel portions at first, second, and third ports, respectively. In the method, a sample is moved electrokinetically into the electrolyte channel, to form a defined sample volume therein. By simultaneously controlling the voltage applied to the three side channels, and at least one of the upstream and downstream channel end portions, the sample volume element can be shaped to have a desired leading- and trailing-edge shape and/or distribution of sample components within the volume elements.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N27/447

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

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Y	US 5 869 004 A (KOPF-SILL ANNE R ET AL) 9 February 1999 (1999-02-09) column 3, line 3 - line 17; figures	10-12, 18,19
Y	PIER GIORGIO RIGHETTI (ED): "Capillary electrophoresis in analytical biotechnology" 1996, CRC PRESS, NEW YORK XP008002033 cited in the application page 84 -page 87	6,8,16, 17
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- "&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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